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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/248,738	02/10/1999	DAVID A. BEYER	003867.P001	9149

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EXAMINER

HARPER, KEVIN C

ART UNIT	PAPER NUMBER
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2666

DATE MAILED: 03/22/2004

26

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/248,738

Applicant(s)

BEYER ET AL.

Examiner

Kevin C. Harper

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,6,9-12,16-19,21,23-47,49-52 and 55-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-18 and 60 is/are allowed.
- 6) ☒ Claim(s) 26-40,45-47,49-52 and 55-59 is/are rejected.
- 7) ☒ Claim(s) 1,4,6,9-12,19,21,23-25 and 41-44 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Response to Arguments

Applicant's arguments with respect to claims 26-40,45-47,49-52 and 55-59 have been considered but are moot in view of the new ground(s) of rejection. The indicated allowability of claims 26-40,45-47,49-52 and 55-59 is withdrawn under further consideration of Flammer.

Claim Objections

1. Claims 1, 4, 6 and 9-12 are objected to because in independent claim 1 and in claim 4, "one or more common channels" should be --two or more common channels-- (Figure 3; specification, page 19, lines 21-24; note: "cycling through a set of ... common channels" indicates more than one channel is present).
2. Claims 19, 21, 23-25, 27, and 41-44 are objected to because in independent claim 19 and in claim 27, "the control packet", in the second from last line, should be --a control packet--.
3. Claims 33 and 52 are objected to because the occurrences of "varying" in the last line should each be --various--.
4. Claims 55-59 are objected to because parent claims 55-56 are dependent upon canceled claim 54.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 26-33, 35-40, 45, 49-52, 56-57 and 59 are rejected under 35 U.S.C. 102(b) as being anticipated by Flammer (US 5,130,987).

1. Regarding claim 26, Flammer discloses a method for computing a transmission time for a packet (col. 7, lines 34-52) from a first node of a computer network according to the identification of the node and an indication of the network age up to the start of a current frame within which the packet is to be transmitted (col. 7, lines 46-51), wherein the computing is performed using a table of entries of pseudorandom values (col. 3, lines 38-48).

2. Regarding claims 33, 35, 45 and 49, Flammer discloses a method for computing a transmission time for a packet (col. 7, lines 34-52) from a first node of a computer network according to the identification of the node and an indication of the network age up to the start of a current frame within which the packet is to be transmitted (col. 7, lines 46-51), wherein the computing is performed using a table of entries of pseudorandom values (col. 3, lines 38-48). Transmission times are calculated based on identifiers for transmitting nodes (col. 7, lines 34-38; col. 8, line 55; col. 3, lines 38-41) and the age of the network (col. 7, lines 37-46) and the nodes resolve transmission times according to priority (col. 7, line 67 through col. 8, line 10 and col. 8, lines 56-58; note: an older node will transmit before a younger node because the transmission is at a smaller time offset).

3. Regarding claim 52, Flammer discloses a method comprising using a topology-independent scheduling procedure (col. 7, lines 34-52; col. 7, line 67 through col. 8, line 3; col. 8, lines 12-15) according to the network age and network node identifiers (col. 7, lines 46-51) to determine transmission times within a computer network and a topology-dependent scheduling procedure to avoid collisions in contended time periods (col. 8, lines 28-35, 40-42, and 45-47).

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The scheduling function provides various outputs for various inputs (Figure 2; col. 3, lines 38-44).

4. Regarding claim 27, the transmission time is for control packets (col. 6, lines 25-38).

5. Regarding claim 28, the transmission times for other nodes are computed (col. 3, lines 38-41).

6. Regarding claim 29, the transmission times are calculated based on identifiers for transmitting nodes (col. 7, lines 34-38; col. 8, line 55) and the age of the network (col. 7, lines 37-46).

7. Regarding claim 30, the same function is used for computing all the transmission times of the nodes of the network (col. 3, lines 44-48).

8. Regarding claim 31, the nodes communicate directly with each other (col. 3, lines 38-45).

9. Regarding claims 32, 56-57 and 59, the nodes resolve transmission times according to priority which is unique to each identified node (col. 7, line 67 through col. 8, line 10 and col. 8, lines 56-58).

10. Regarding claims 36-40, if the priority of a node is greater than the priority of other nodes, then it will transmit at a given time within a time slot (col. 7, line 67 through col. 8, line 10 and col. 8, line 56-58).

11. Regarding claims 50-51, the pseudorandom table (col. 3, lines 38-41) is indexed by node IDs used for addresses (col. 8, lines 48-55; Figure 4). The node IDs correspond to a priority determination (col. 8, lines 56-58; Figure 2; col. 8, lines 12-15).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 34, 55 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flammer as applied to claim 33, 54 or 57 above, in further view of Dent (US 5,896,375).

12. Regarding claims 34, 55 and 58, Flammer does not disclose that computing transmission times is performed by an encryption algorithm. Dent discloses computing transmission times using an encryption algorithm (Figures 2-3; col. 6, lines 36-46 and col. 7, lines 32-40).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have an encryption function to computer transmission timings in the invention of Flammer in order to avoid interception of radio transmissions (Dent, col. 4, lines 18-31).

Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Flammer (US 5,130,987) in view of Grayson (US 2003/0043763).

13. Regarding claim 45, Flammer discloses a method for computing a transmission time for a packet (col. 7, lines 34-52) from a first node of a computer network according to the identification of the node and an indication of the network age up to the start of a current frame within which the packet is to be transmitted (col. 7, lines 46-51), wherein the computing is performed using a table of entries of pseudorandom values (col. 3, lines 38-48). A network control packet (Figure 4) includes a transmission schedule (item 94; col. 6, lines 13-15 and 59-68). However, Flammer does not disclose that the control packet includes a persistence indicator. Grayson discloses that a packet includes a persistence indicator (para. 27, lines 1-4 and 12-14; para. 31, lines 4-10). Therefore, it would have been obvious to one skilled in the art

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at the time the invention was made to have a persistence indicator in the invention of Flammer in order to enable a receiver to have knowledge of the expected completion of a data transmission which is segmented among several packets.

Claims 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flammer (US 5,130,987) in view of Balachandran et al. (US 6,115,394).

14. Regarding claims 46-47, Flammer discloses a method for computing a transmission time for a packet (col. 7, lines 34-52) from a first node of a computer network according to the identification of the node and an indication of the network age up to the start of a current frame within which the packet is to be transmitted (col. 7, lines 46-51), wherein the computing is performed using a table of entries of pseudorandom values (col. 3, lines 38-48). A network control packet (Figure 4) includes a transmission schedule (item 94; col. 6, lines 13-15 and 59-68) which includes a node to receive the data transmission (Figure 4, item 88; col. 5, line 60). However, Flammer does not disclose that the nodes are identified by local identifiers which are smaller than network identifiers associated with the nodes. Balachandran discloses a local identifier which is used to transmit a packet (Figures 2A, alias address), where the local identifier is smaller than a network identifier associated with the node (Figure 2B and 2C; Figure 5C; note: alias address of 1 or 2 bytes is smaller than a destination address of 6 bytes). A mapping of the local identifier to the network identifier is transmitted (Figure 3, steps 36-40). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have a local identifier shorter than a network identifier in the invention of Flammer in order to provide a better transmission utilization in a wireless environment.

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Allowable Subject Matter

15. Claims 1, 4, 6, 9-12, 19, 21, 23-25 and 41-44 would be allowable if the above claim objections are overcome.
16. Claims 16-18 and 60 are allowed.

Conclusion

17. The set of amended claims in the response dated December 8, 2003, included typographical errors for claims which were not entered: in claim 1, "notes" in the penultimate line should be --nodes--; in claim 16, line 4, "racket" should be --packet--.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Harper whose telephone number is 703-305-0139. The examiner can normally be reached weekdays, except Wednesday, from 9:30 AM to 8:00 PM ET.

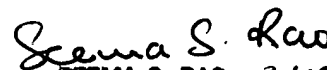
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao, can be reached at 703-308-5463. The centralized fax number for the Patent Office is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office for TC 2600 at 703-306-0377.

Kevin C. Harper



March 15, 2004


SEEMA S. RAO 3/19/04
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600